

We claim:

1. A method for the amplification of nucleic acid fragments from a sample, said method comprising first and second thermocyclic amplification reactions, wherein said first amplification reaction is carried out using completely randomized primers, said second amplification reaction is carried out using specific primers, and said first and second amplification reactions are carried out using a mixture of at least two DNA polymerases, at least one of which possesses 3'-5' exonuclease activity.
2. The method of claim 1, wherein, in said first amplification reaction, the temperature at which primer extension is carried out is increased in at least some of the successive amplification cycles.
3. The method of claim 1, wherein said mixture of DNA polymerases comprises a DNA polymerase without 3'-5' exonuclease activity and a DNA polymerase with 3'-5' exonuclease activity.
4. Method based on claims 1-2, characterized in that the sample comprises a pool of cDNAs.